

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventors:	Kenneth Rose; Mick Jacobs; Jatin Batra		
Assignee:	Cisco Technology, Inc.		
Title:	ADAPTIVE BANDWIDTH UTILIZATION OVER FABRIC LINKS		
Application No.:	09/978,475	Filing Date:	October 16, 2001
Examiner:	Karen C. Tang	Group Art Unit:	2451
Docket No.:	CIS0128US	Confirmation No.:	5139

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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Applicant hereby requests review of the Final Office Action mailed January 31, 2011 (the "Final Office Action") in the above-identified application. The Final Office Action sets a three-month shortened statutory period for reply. This Request is being filed concurrently with a Notice of Appeal. Claims 1-4, 6, 8, 10-12, 14, 16, 24, 25, 30-32, 34, 35 and 37-43 are pending in the application. Claims 1-4, 6, 8, 10-12, 14, 16, 24, 25, 30-32, 34, 35 and 37-43 stand rejected.

*Rejection of Claims under 35 U.S.C. § 103*

Independent claim 1 requires “modifying the first predetermined value in response at least in part to the comparing the first data quantity value to the first predetermined value.” Independent claims 10, 24, 30, and 31 contain similar limitations. Each of these independent claims were rejected under 35 U.S.C. § 103 as being unpatentable over Sandoval in view of Nakayama and Bass. The Final Office Action admits that neither Sandoval or Nakayama teaches “modifying the first predetermined value.” However, the Final Office Action argues that Bass teaches this limitation. Applicants respectfully disagree.

The Final Office Action on page 4 cites to paragraph 0019 of Bass as disclosing “modifying the first predetermined value in response at least in part to comparing the first data quantity value to the threshold.” Paragraph 0019 teaches comparing the occupancy of queue 124 with thresholds T1 and T2. If “modifying the first predetermined value in response at least in part to the comparing the first data quantity value to the first predetermined value” is to read on paragraph 0019, the paragraph must teach modifying T1 or T2 in response to comparing the occupancy of queue 124 to T1 or T2. However, paragraph 0019 does not teach modifying T1 or T2, let alone modifying T1 or T2 in response to comparing the occupancy of queue 124 to T1 or T2.

An online dictionary defines modify as “to change in form or character.” One of ordinary skill in the art understands that modifying T1 or T2 would result in a new value thereof. But paragraph 0019 of Bass teaches calculating, not modifying T1 and T2. Calculating doesn’t necessary mean modifying. Paragraph 0063 of Bass indicates that T1 and T2 are computed “at initialization time from Qmax.” This implies T1 and T2 are not modified after “initialization.” Further, according to paragraph 0019 of Bass, Qmax is the maximum capacity of buffer queue 124, and thus one of ordinary skill in the art understands that Qmax does not change. Paragraph 0063 of Bass indicates that T1 and T2 are computed from Qmax, which also implies that T1 and T2 do not change.

Claim 1 recites a temporal relationship between the comparing and modifying steps; the modifying occurs in response to the comparing. Bass teaches circuit 134 initially calculating T1 and T2, then the threshold circuit comparing T1 and T2 to the level of data packets temporarily stored in buffer queue 124. Paragraph 0019 of Bass, which was relied upon as teaching the

limitation of question, does not teach the reverse order of calculating T1 and T2 after comparing T1 and T2 to the level of data packets stored in buffer queue 124. In contrast, claim 1 requires this reverse order since the first predetermined value is modified in response at least in part to the comparing the first data quantity value to the first predetermined value (i.e., T1 or T2).

The Final Office Action on page 2 responded to the foregoing arguments. Specifically, the Final Office Action argues “the first predetermined value is being interpreted as the value which is used for comparison with the quantity value of the buffer.” In other words, the Final Office Action argues that there is comparison value, let’s call it CV, which (1) is initially set to CV=T1, (2) compared to the quantity of data in buffer queue 124, (3) changed to CV=T2, and (4) compared to the quantity of data in buffer queue 124. Changing C V=T1 to CV=T2 is equated with the claimed requirement of “modifying the first predetermined value.” This interpretation of “modifying” is in error.

During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.” The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *MPPEP 2111*. The last full paragraph beginning on page 16 of the application begins:

One way to avoid frequently sending rate codes to fabric 202 due to q(t) oscillation around one of the programmed quantities Q(1) through Q(n), is to dynamically *modify* the value Q(x) used for comparison with q(t) as the Q(x) threshold is crossed by q(t) from below.

Later, this same paragraph gives an example of modification of the value Q(x). Specifically, the last two sentences provide:

If q(t) rises from 0 to exceed 500, the q(t) comparison for that comparator is against the level 475. However once q(t) drops below 475, Q(2)=475 is replaced with 500 to avoid frequently sending different rate codes if the q(t) value now hovers around 475.”

The Examiner’s interpretation of “modifying” the first predetermined value would be inconsistent with at least the foregoing. Modification means that the first predetermined value is “changed by an amount” (page 16, line 25) to generate a new and different first predetermined value, and the prior first predetermined value ceases to exist. One of ordinary skill would not interpret a change in comparison value CV from T1 to T2 as argued in the Final Office Action.

Moreover, the Final Office Action’s interpretation of “modifying” is inconsistent with the

interpretation employed in the rejection of dependent claim 6. On Page 5 of the Final Office Action, Sandoval is said to disclose comparing the first data quantity value to a plurality of predetermined values, wherein the first predetermined value is one of the plurality of first predetermined values, citing column 3, lines 35 - column 4, line 15 in support thereof. This cited section of Sandoval discloses a test circuit that uses average queue depth (AVG\_QUE) to detect symptoms of congestion in a FIFO buffer 126. Beginning at line 54, "If the signal AVG\_QUE is below the minimum threshold (e.g., the yes branch of the decision block 140) then the test circuit 120 generally permits the additional data packet into the FIFO buffer for storage (e.g., block 142.)" Beginning with the first line of column 4 of Bass, "The test circuit 120 may compare the signal AVG\_QUE against the maximum threshold. (e.g., decision block 148)." The Final Office Action equates the claimed predetermined values, which includes the first predetermined value, with Sandoval's minimum and maximum thresholds, which correlate with Bass' T1 and T2. On one hand the claimed first predetermined value is equated with a comparison value CV that changes from T1 to T2, and on the other hand the claimed first predetermined value is equated with one of Sandoval's minimum and maximum thresholds, which are compared against AVG\_QUE.

For at least the forgoing reasons, claims 1-4, 6, 8, 10-12, 14, 16, 24, 25, 30-32, 34, 35 and 37-43 and all claims dependent therefrom are also allowable under 35 U.S.C. § 103.

Respectfully submitted,

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